

## ABSTRACT OF THE DISCLOSURE

A fuel-cell system with a fuel battery comprising more than one fuel cell having a purge gas passage connecting the fuel battery to a purge gas cylinder, a discharge passage connecting the fuel battery to the exterior, solenoid valves each installed in the passages, and an electronic control unit that opens the solenoid valves to open the passages to supply the purge gas to the fuel battery such that residue in the fuel battery is purged to the exterior by the purge gas. The control unit opens the valves at a time interval determined from an output of a current sensor to conduct purge at optimum timing for the battery operating state so as to prevent accumulation of residue in the fuel battery, while preventing repetition of unnecessary purges. Alternatively, manual valves are provided to be manually opened by an operator to open a fuel gas supply passage to supply the fuel gas such that residue is purged by the fuel gas through the discharge passage, thereby enabling fuel supply and purge of residue at starting of power generation, without using an external power source.